

16 April 1959

MEMORANDUM FOR THE RECORD

**SUBJECT: Report - NRC Committee on Vision
7 - 8 April 1959**

1. The meeting as a whole was a restatement of many phenomena and problems known to the author since 1946 when working on visual spotting projects with VX-1. Some of these are:

a. Binoculars are not as effective as the eye for the initial search instrument; they do serve a purpose of identification once an object is found.

b. Visual observers should be rotated every 45 minutes at a minimum and allowed to rest for 45 minutes.

c. A human being armed with the knowledge of knowing what he is looking for has a better probability of finding that object than one who must make decisions.

d. A difficulty in training observers is: Does an individual see differently or does he say differently?

e. In scanning, the eye moves from fixation point to fixation point and is more aware of other objects in a lateral plane from the point of fixation than of those objects in a vertical plane.

2. Dr. John Volkman, Mount Holyoke College, and Dr. William J. McGill, Columbia University, have both been testing subjects as to their visual perceptivity through the use of flash cards and short duration flashes of projected images. In either case the problem was to find a particular object in a group of similar objects or minute change in a uniform matrix. In both cases the respective doctors had used female students, aged 18 - 25, as their subjects. It is believed that the tests as performed in these experiments might have application in the selection of potential photographic interpreters.

3. Lt. Col. Henry F. Hauser from Ft. Huachuca made the statement that all visual observers must be trained photographic interpreters if the best results from visual search are to be obtained.

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4. RECOMMENDATIONS:

a. It is recommended that the Mount Holyoke and Columbia University techniques of visual testing be combined and that these techniques be used to test all future potential Photographic Interpreters.

b. It is recommended that a technique be explored for the use of visual search and rescue operations. That an airborne wide angle camera be used in conjunction with a rapid development technique similar to the technique of [] and that two photo interpreters be employed as scanners of the film. The physical environment of the PI observers could be made much more comfortable than that of the present day visual observers, and the PI observers could be rotated every 30 minutes, giving ample rest periods.

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